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EXAMINER

MICHENER, JENNIFER KOLB

ART UNIT PAPER NUMBER

1762

DATE MAILED: 05/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,341

Applicant(s)

BEIER, MARKUS

Examiner

Jennifer K Michener

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 8, 9, 11-13, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 9, 11-13 and 20 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The comments regarding the specification have been withdrawn in light of Applicant's amendments.

Claim Rejections - 35 USC § 112

2. The rejection of claim 2 under 35 U.S.C. 112, second paragraph, has been withdrawn in light of Applicant's amendments.
3. Examiner maintains the rejection of claim 12 because it remains unclear as to whether the original support of claim 2 or the dendrimer product of claim 1 is activated.

Claim Rejections - 35 USC § 102

4. Claims 1-3, 8, 9, 11-13, and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Beier et al. (Nucleic Acids Research, vol. 27, number 9).
Examiner maintains the rejection.
The rejection of claim 21 has been withdrawn in light of Applicant's clarification.
5. Claims 1-3 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Cahalan et al. (US 5,607,475).
Examiner maintains the rejection.
The rejection of claim 21 is withdrawn in light of Applicant's clarification.

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6. Claims 1-3, 11-12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Stolowitz et al. (4,837,348).

Examiner maintains the rejection.

The rejection of claim 21 is withdrawn in light of Applicant's clarification.

Allowable Subject Matter

7. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record fails to teach the use of these types of cellulose substrates in the method of the invention.

Response to Arguments

8. Applicant's arguments filed 2/26/04 have been fully considered but they are not persuasive.

Applicant argues that the Beier reference was published in 1999 and is therefore not prior art because Applicant has priority to November 18, 1998.

Acknowledgment is made of applicant's claim for foreign priority. It is noted, however, that Applicant must perfect his priority in order to receive priority back to the 11/18/1998 date. An English language translation of a non-English language foreign application is required when necessary to overcome the date of a reference relied upon by the examiner. If an English language translation is filed, it must be filed together with a statement that the translation of the certified copy is accurate.

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Applicant argues that Cahalan does not teach a method of producing a dendrimeric structure such that steps (a) and (b) are repeated until a dendrimeric structure is obtained. Additionally, Applicant argues that the process of Cahalan uses the polyamine as a spacer only and, thus, it does not "make an active reaction with the functional groups on the surface".

Examiner disagrees.

As outlined in the previous office action, Cahalan teaches every method limitation of Applicant and therefore inherently creates the structure of Applicant. If there is some difference between Cahalan's structure and that of Applicant's it must be due to some process limitation not required by the claim.

Examiner additionally notes that repetition of steps (a) and (b) until a dendrimeric surface structure is obtained is not required by the claim.

Regarding Cahalan's alleged lack of "active reaction", Examiner notes that claim requires "reacting the activated functional group with a polyamine component".

Webster's defines "reaction" as "interaction of chemical entities". Examiner maintains that Cahalan teaches such an interaction. As outlined in col. 7, lines 3-25 and in the previous office action, Cahalan teaches activation of hydroxyl functional groups on the substrate with an activating agent, as required by step (a) and then contacting a polyamine to the activated surface to form a "bond", as required by step (b). It is Examiner's position that regardless of whether or not Cahalan's polyamine is defined as a "spacer", an active reaction between the polyamine and activated functional groups occurs, as is taught by Cahalan.

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Applicant argues that Stolowitz does not use a polyamine component and does not create dendrimeric structures, but rather linear structures.

Examiner disagrees.

The abstract and specification of Stolowitz teaches the use of primary or secondary alkyl or aryl amines. These linear or cyclic chains of amines are polyamines.

As outlined in the previous office action, the formula in column 5 shows a dendrimer, not linear, structure.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

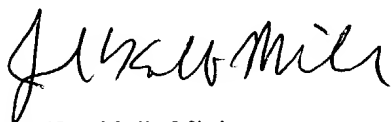
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer K Michener whose telephone number is (571)

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272-1424. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on 571-272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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May 6, 2004